

WHAT IS CLAIMED IS:

1. Where a first communications service exhibits a first performance characteristic affecting communications quality and a second communications service exhibits both the first performance characteristic and a second performance characteristic not exhibited by the first communications service, a method for determining the effect of the second performance characteristic upon the quality of the second communications service comprising the steps of:
 - establishing communications via the second communications service;
 - obtaining objective measurements of the first performance characteristic as the second performance characteristic varies;
 - converting the objective measurements of the first performance characteristic into subjective ratings based upon knowledge of the first communication service;
 - altering the subjective ratings to reflect the effects of the second performance characteristic by use of an assumed model for the effects of the second performance characteristic upon the subjective ratings of the first performance characteristic;
 - computing quality index values from the altered subjective ratings; and
 - adjusting the assumed model to improve the correlation between the quality index values and the second performance characteristic.
2. The method of claim 1 further comprising the step of:
 - using the assumed model in subsequent analyses of communications systems having similar characteristics.
3. The method of claim 1 wherein the first performance characteristic is speech distortion.
4. The method of claim 1 wherein the second performance characteristic is packet loss rate.
5. The method of claim 1 further comprising the step of:
 - adjusting the assumed model until a desired degree of correlation is achieved.

6. Where a first communications service exhibits a first performance characteristic affecting communications quality and a second communications service exhibits both the first performance characteristic and a second performance characteristic not exhibited by the first communications service, an apparatus for determining the effect of the second performance characteristic upon the quality of the second communications service comprising:

means for establishing communications via the second communications service;

means for obtaining objective measurements of the first performance characteristic as the second performance characteristic varies;

means for converting the objective measurements of the first performance characteristic into subjective ratings based upon knowledge of the first communication service;

means for altering the subjective ratings to reflect the effects of the second performance characteristic by use of an assumed model for the effects of the second performance characteristic upon the subjective ratings of the first performance characteristic;

means for computing quality index values from the altered subjective ratings; and

means for adjusting the assumed model to improve the correlation between the quality index values and the second performance characteristic.

7. The apparatus of claim 6 further comprising:

means for using the assumed model in subsequent analyses of communications systems having similar characteristics.

8. The apparatus of claim 6 wherein the first performance characteristic is speech distortion.

9. The apparatus of claim 6 wherein the second performance characteristic is packet loss rate.

10. The apparatus of claim 6 further comprising:

means for adjusting the assumed model until a desired degree of correlation is achieved.